

***California Department of  
Forestry and Fire Protection  
San Benito – Monterey Unit***



**2005 Fire Plan**

---

**Sam L. Mazza**  
Unit Chief

## **Contents**

Introduction .....	1
Executive Summary .....	2
Stakeholders .....	5
Who are they?.....	5
What are the key issues important to stakeholders?.....	5
Assets at Risk.....	5
Current Fire Situation:.....	9
Ignition Workload Assessment (Level of Service) .....	9
Fuels .....	10
Severe Fire Weather .....	13
Priority Areas.....	15
Residential Chipping & Public Education Program.....	16
State Highway 68 Corridor / Laureles Grade:.....	16
Carmel Valley / Carmel Valley Village: .....	19
Carmel Highlands / Palo Colorado Canyon .....	22
San Juan Canyon.....	25
Pine Canyon.....	28
Cachagua .....	30
North Monterey County / Aromas .....	33
Jack's Peak / Pebble Beach .....	36
Appendix A-1 .....	A-1
Appendix A-2 .....	A-2
Appendix A-3 .....	A-5
Appendix A-4 .....	A-6
Appendix A-5 .....	A-7
Appendix A-6 .....	A-29

## Introduction

The California Fire Plan is the state's road map for reducing the risk of wildfire. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan seeks to reduce fire fighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The San Benito – Monterey Unit, with the cooperation of key stakeholders, has designed a plan with the intention of meeting the goals set by both the stakeholders and the California Fire Plan.

CDF addresses fire prevention through its engineering, education and law enforcement programs. Their shared objective is reduced fire hazard and risk. This is more narrowly addressed in a planning process based on ignition management and loss reduction, including biomass harvesting, fire resistant landscaping, mechanical and chemical fuels treatments, building construction standards, infrastructure, land use planning and pre-fire, safety zone, and escape plans.

Ignitions are managed by preventing fires likely to exceed the capabilities of available suppression forces that could result in large damaging fires. Loss reduction is integral to mitigating large and damaging fires. Significant improvement can be achieved by reducing hazards (fuel buildups around structures and communities) and working with private industry to implement hazard reduction plans around residential developments in the rural-urban intermix areas. Additionally, pre-designated suppression and evacuation plans are effective tools in ensuring civilian and firefighter life safety. Successful programs permit more effective utilization of CDF's initial attack forces and enhance firefighter safety and citizen safety.



## **Executive Summary**

The San Benito-Monterey Unit is located along the central coast between San Luis Obispo County on the south and Santa Cruz and Santa Clara counties on the north. The Pacific Ocean abuts the western side of the Unit, and the Diablo Mountains and the San Joaquin Valley lie to the east.

The Unit encompasses 2.1 million acres of State Responsibility Area (SRA), representing one of the largest state responsibility jurisdictions in CDF. There are approximately 700,000 acres of Federal, State and Local government land, some of which are protected by CDF contractually or by agreement with a Federal agency.

The Unit is operationally divided into four divisions and thirteen battalions or programs. The Unit has eleven state-funded fire stations, six local government stations, thirteen volunteer companies, one air attack base, one Helitack base, and a CDF/CDC inmate conservation camp. Additionally, the unit has Cooperative Fire Protection Agreements with seven local fire protection agencies.

The weather in the unit is divided into two basic patterns. The northwestern area of the unit experiences a common coastal weather pattern with low clouds and fog which by mid-day give way to temperatures in the mid 70's to 80's. The eastern and southern areas of the unit generally have less fog and temperatures commonly in the 90 to 100 degree range. Winters are mild with rainfall from 7 to 30+ inches. Wind speed and direction is variable, but is predominantly northwest at 7-10 MPH.

The topography of the unit is steep and rugged with moderate to heavy vegetative cover. Plant species vary by aspect, slope, elevation, soil type, past fire history, and distance from the coast. The predominant vegetation types are coastal sage, chaparral, and oak/grass woodland, with the Monterey Peninsula supporting stands of various coastal timbers.

The coastal weather influence, together with periods of extreme fire weather conditions, provide a window for extreme wildland fire behavior in areas of potentially high dollar loss. These conditions combine with the expanding wildland interface and urban population to yield the potential for large, damaging and costly wildfires. These areas at risk are defined further in the target area section of the Fire Management Plan. The unit has an overall fire hazard rating of Very High (85% of Unit).

Primary businesses include farming, industry, and tourism. San Benito and Monterey Counties continue to be listed among the top five fastest growing regions of the state.

The primary goal of the 2005 San Benito - Monterey Unit Fire Plan is to prevent the ignition and spread of unwanted, human-caused fires with an emphasis on reducing losses as a result of large damaging fires. Utilizing fire history, fuels data, weather data, and assets at risk, the unit has identified several target areas as indicated in this document. Proactive pre-fire suppression activities and public information and education programs are key elements of this plan.

Sam L. Mazza  
Unit Chief

## Stakeholders and Assets At Risk (AAR)



## **Stakeholders**

### **Who are they?**

The San Benito- Monterey Unit (BEU) hosts a diverse group of Stakeholders. Local government entities, citizens, and businesses have expressed concerns about the potential for large, damaging wildfires, and actions that can be taken to prevent or minimize the loss from such fires. With assistance from the Unit, local stakeholders have formed Fire Safe Councils in both Monterey and San Benito counties. As the Monterey County and San Benito County Fire Safe Councils continue to expand, their members, including homeowner groups, local fire agencies, PG&E, Fort Ord, The U.S. Forest Service, and The U.S. Bureau of Land Management, provide diverse opportunities to address the overall wildland fire problem from a community perspective. A detailed roster of local stakeholders is included in the appendix to this document.

### **What are the key issues important to stakeholders?**

Local stakeholders have concerns similar to those expressed historically by most residents of the state. Following the 2003 firestorm in Southern California, local stakeholders are fearful that a similar tragedy could occur in their communities. Recent mitigation efforts have raised the awareness of the impacts of large fires, including the harmful effects of exposure to smoke, loss of tourism, loss of homes and businesses, and the potential for serious injury or loss of life. Local stakeholders understand the fiscal constraints of today's economy, and are actively seeking avenues to mitigate the threat of large damaging fires through participation on Fire Safe Councils. The Unit and the Fire Safe Councils have taken advantage of, and continue to seek out available grants and other funding sources for hazard mitigation projects.

## **Assets at Risk**

Assets susceptible to fire damage are identified in the Fire Plan as air quality, rangelands, recreation, structures, timber, water and watersheds, wildlife and habitat, and other resources (cultural, historical, and scenic). The focus of this plan and relative importance of each Asset has been determined by reviewing input from local stakeholders and CDF Fire Managers. The BEU FIRE PLAN has been engineered with these issues in mind.

## Assets At Risk (AAR) Ranking Methodology

Asset at Risk	Public Issue Category	Location and ranking methodology
Hydroelectric power	Public welfare	1) Watersheds that feed run of the river power plants, ranked based on plant capacity; 2) cells adjacent to reservoir based plants (Low rank); and 3) cells containing canals and flumes (High rank)
<b>Fire-flood watersheds</b>	<b>Public safety Public welfare</b>	<b>Watersheds with a history of problems or proper conditions for future problems (South Coastal Plain, field/stakeholder input), ranked based on affected downstream population</b>
Soil erosion	Environment	Watersheds ranked based on erosion potential
Water storage	Public welfare	Watershed area up to 20 miles upstream from water storage facility, ranked based on water value and dead storage capacity of facility
Water supply	Public health	1) Watershed area up to 20 miles upstream from water supply facility (High rank); 2) grid cells containing domestic water diversions, ranked based on number of connections; and 3) cells containing ditches that contribute to the water supply system (High rank)
Scenic	Public welfare	Four mile view shed around Scenic Highways and 1/4 mile view shed around Wild and Scenic Rivers, ranked based on potential impacts to vegetation types (tree versus non-tree types)
Timber	Public welfare	Timberlands ranked based on value/susceptibility to damage
Range	Public welfare	Rangelands ranked based on potential replacement feed cost by region/owner/vegetation type
Air quality	Public health Environment Public welfare	Potential damages to health, materials, vegetation, and visibility; ranking based on vegetation type and air basin
Historic buildings	Public welfare	Historic buildings ranked based on fire susceptibility
<b>Recreation</b>	<b>Public welfare</b>	<b>Unique recreation areas or areas with potential damage to facilities, ranked based on fire susceptibility</b>
<b>Structures</b>	<b>Public safety Public welfare</b>	<b>Ranking based on housing density and fire susceptibility</b>
Non-game wildlife	Environment Public welfare	Critical habitats and species locations based on input from California Department of Fish and Game and other stakeholders
Game wildlife	Public welfare Environment	Critical habitats and species locations based on input from California Department of Fish and Game and other stakeholders
<b>Infrastructure</b>	<b>Public safety Public welfare</b>	<b>Infrastructure for delivery of emergency and other critical services (e.g. repeater sites, transmission lines)</b>
Ecosystem Health	Environment	Ranking based vegetation type/fuel characteristics

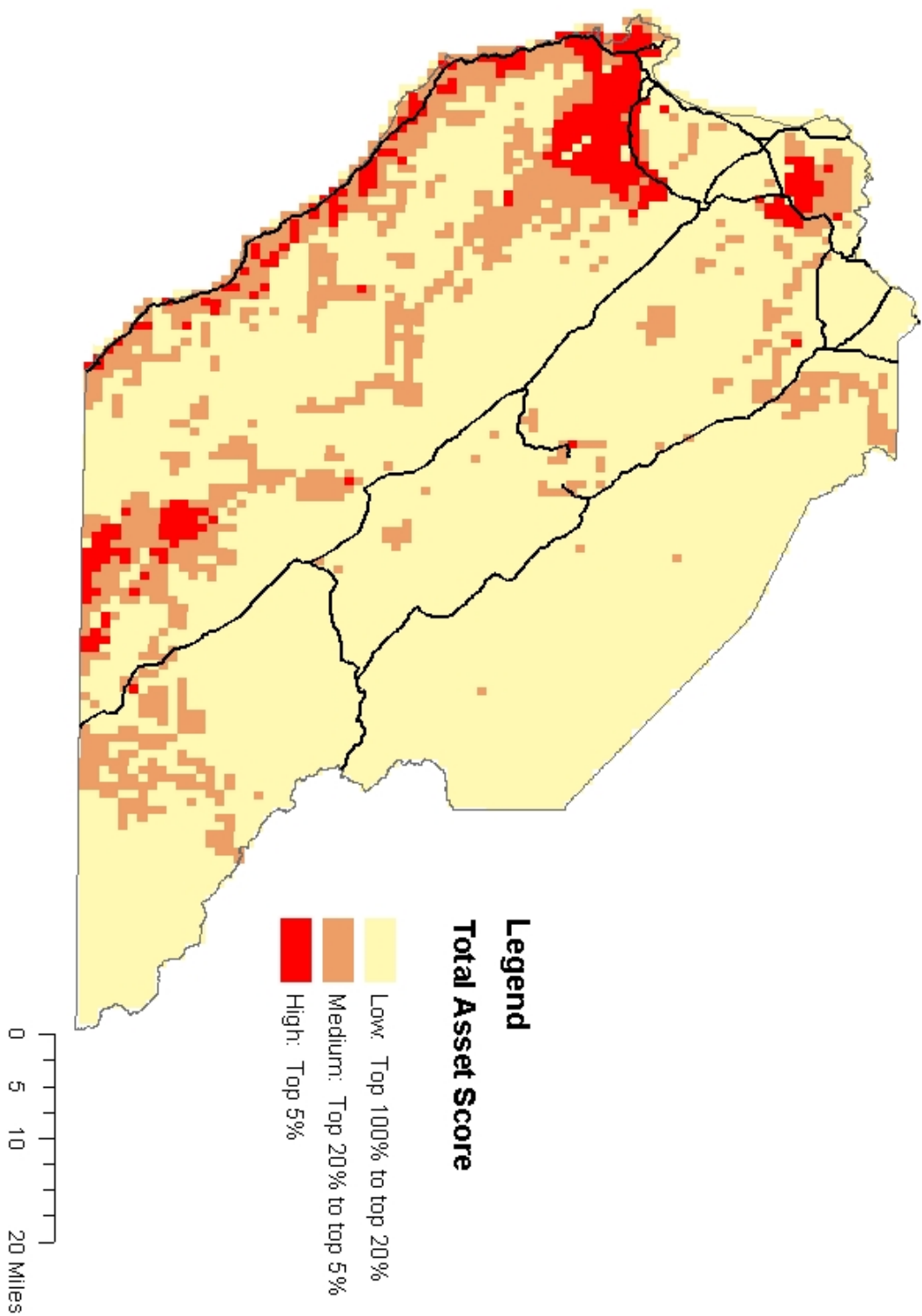
**AAR categories highlighted in red represent target areas identified by stakeholders.**





# San Benito - Monterey Unit

## Assets at Risk



## Current Fire Situation

- Level Of Service (LOS)
- Fuels
- Severe Fire Weather



## Current Fire Situation:

### Ignition Workload Assessment (Level of Service)

The legislature has charged the State Board of Forestry and CDF with delivering a fire protection system that provides an equal level of protection to lands of similar type (PRC 4130). To do this, the department utilizes an analysis process that will define a level of service rating that can be applied to the wildland areas in California to compare the level of fire protection being provided. The rating is expressed as the percentage of fires that are successfully suppressed with initial-attack resources. Success is defined as those fires that are controlled before unacceptable damage and costs are incurred.

Level of service focuses on identifying areas throughout the Unit with the potential for unacceptable loss and high suppression costs. In the assessment, Unit staff has analyzed data by damage, intensity, vegetation type, and initial attack success or failure from 1991 through 2001.

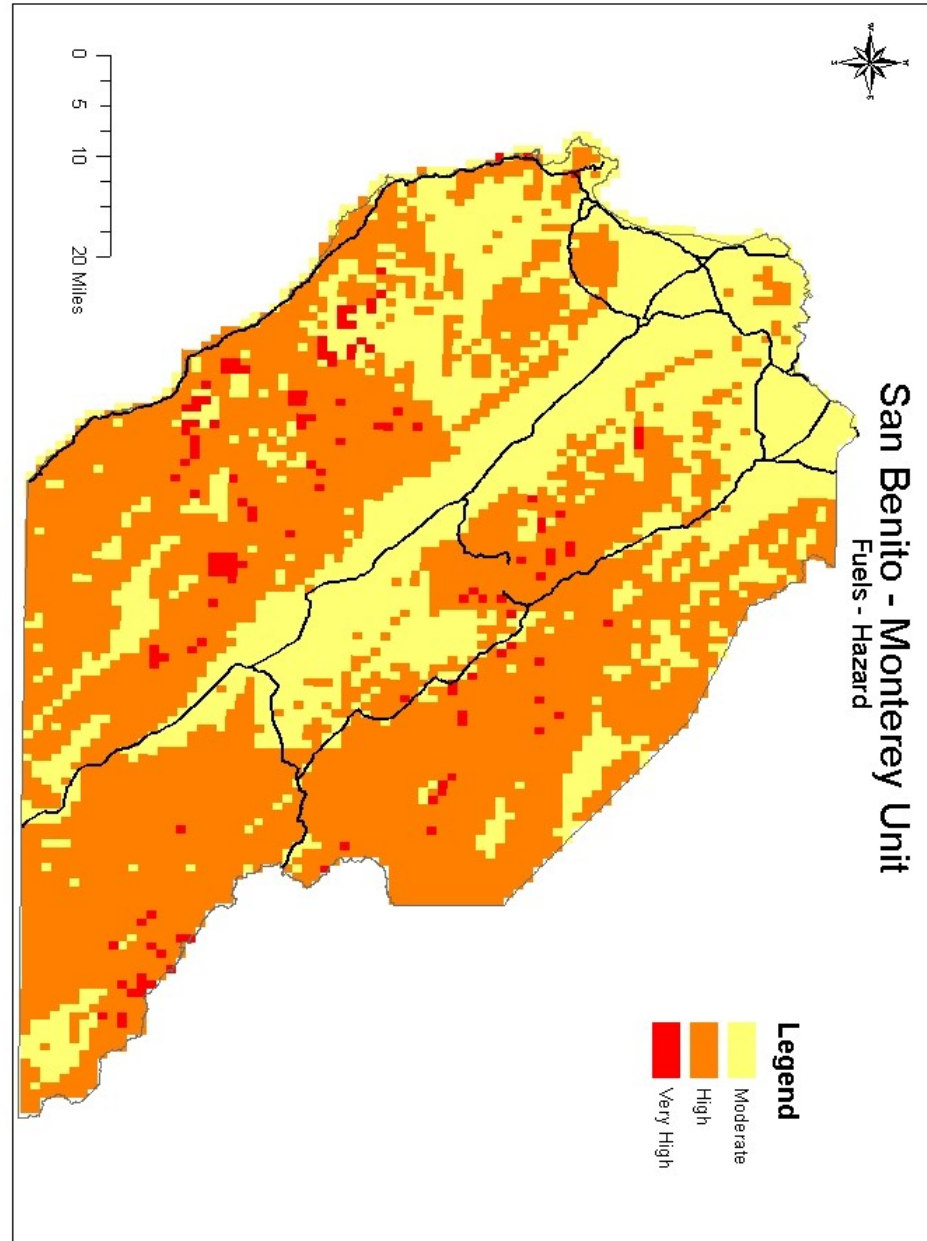
Total SRA fires (1991 - 2001):	2447
Successful Initial Attacks:	2286

  
$$\text{Level of Service} = \frac{\text{Total SRA Fires}}{\text{Successful Initial Attacks}} = \boxed{94\%}$$

The Level of Service (LOS) score is intended as a tool to measure the effectiveness of initial attack success vs. failure when compared to other areas of the state. Unfortunately, some local factors are not taken into consideration, such as travel difficulty, resource drawdown, and concurrent incidents.

## Fuels

Four distinct wildland fuel types dominate the San Benito-Monterey Unit. As the map below depicts, topography and weather patterns seem to dictate the type of fuel in a specific area.



**Fuel Model 1 (annual grasses)**

Although inter-mixed with fuel model 4 (brush), this fuel model dominates the foothills of the eastern portion of the Unit. Extending from the Santa Clara County line southward along the foothills east of the Salinas valley, this fuel model represents more than fifty percent of the fuel types in the Unit.

**Fuel Model 2 (oak woodland)**

This fuel model is typically located on the north and east facing slopes of the Unit. It is predominant in the northeast, southeast and southwest areas of both San Benito and Monterey counties and typically aligned with Fuel model 4 (brush), on the opposite facing slopes.

**Fuel Model 4 (brush)**

While a substantial amount of brush is located in the foothills east of the Salinas Valley, in the area of the Pinnacles National Monument, the majority of this fuel type is found in the mountains west of the Salinas

Valley throughout the coastal range. Typically, it is found on south and western facing slopes in areas not used for cattle grazing. Brush can be found measuring over five feet in height, which corresponds to over 30 years of age.



#### **Fuel Model 9 (conifers)**

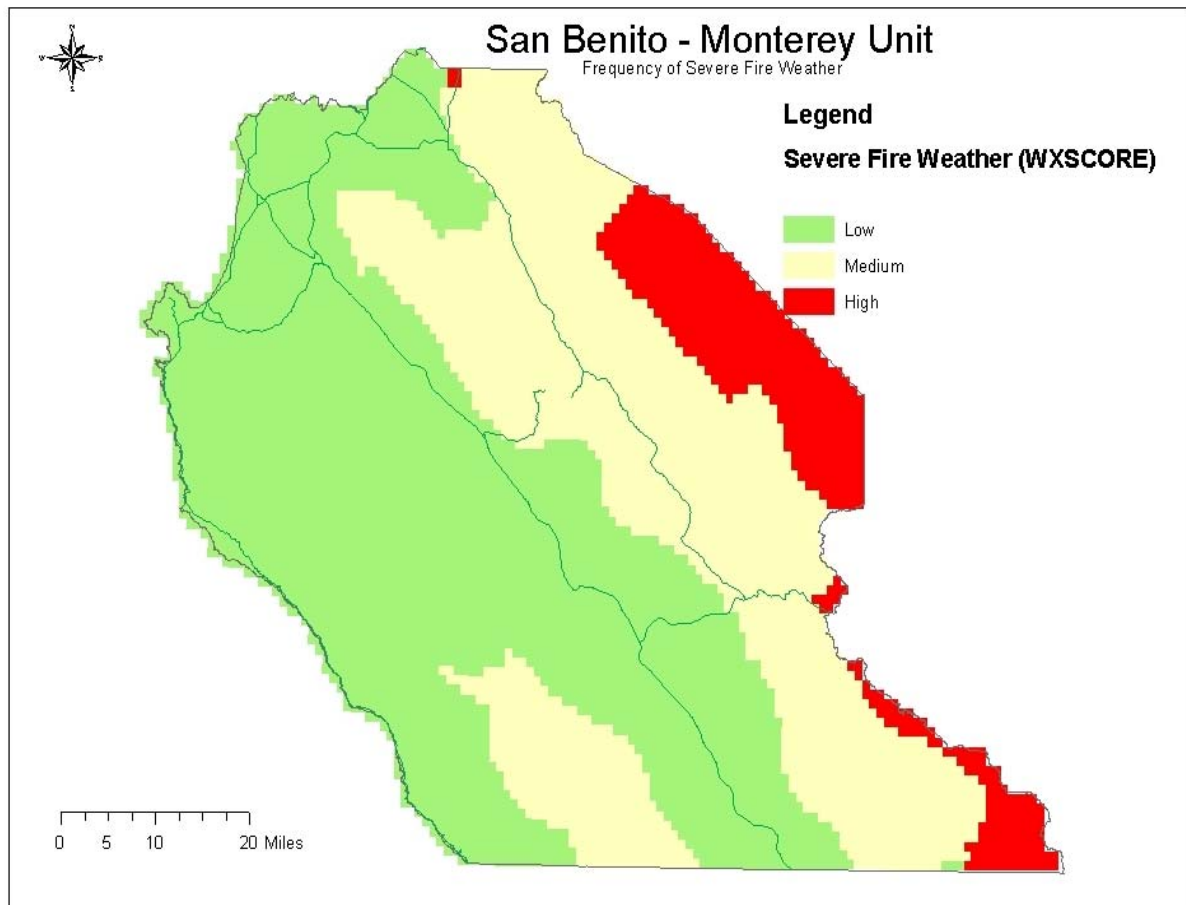
Conifers consisting of several species of pine and redwood are located in two distinct areas within the Unit, specifically, in the Fremont Peak area south of San Juan Bautista, and throughout the coastal mountains south of Monterey. The conifer forests extend into the Big Sur and Ventana Wilderness areas.





## Severe Fire Weather

The weather in the unit is divided into two basic patterns. The northwestern area of the unit experiences a common coastal weather pattern with low clouds and fog which burn off in mid day to temperatures in the mid 70's to 80's. The eastern and southern area experience mild fog conditions, but clear early in the day and commonly produce temperatures in the 90 to 100 degree range. Winters are mild with rainfall from 7 to 30+ inches. Wind speed and direction is variable, but is predominantly northwest at 7-10 MPH.



## Designated Priority Areas

- Target Areas
- Target Area Goals
- Potential Mitigation Actions





## Priority Areas

Several areas have been identified as “target areas” by the San Benito – Monterey Unit management team. The identification of these specific areas was based on available data from Pre-Fire Engineering assessments and stakeholder input. Additionally, local employees provided anecdotal and historical information that was considered useful in understanding local conditions. Target areas described in this plan are not listed in order of priority but rather as elements of the overall Unit Plan.

### Target Areas:

- **State Highway 68 Corridor between Salinas and Monterey Peninsula / Laureles Grade**
- **Carmel Valley / Carmel Valley Village**
- **Carmel Highlands / Palo Colorado Canyon**
- **San Juan Canyon (San Benito County)**
- **Cachagua (Carmel Valley)**
- **Pine Canyon (King City)**
- **North Monterey County / Aromas**
- **Jack’s Peak / Pebble Beach**

Following the assessment of each Target Area, a series of potential mitigation actions was identified and agreed upon by the Unit Management Team. The following describes each area’s geographic location, Assets At Risk (AAR), and potential mitigation actions:

## **Residential Chipping & Public Education Program**

The popularity of the Residential Chipper Program continues to grow each year making communities safer to live in the wildland urban interface areas. In 2005, we expect approximately 500 residents throughout San Benito and Monterey counties to participate in the free curbside chipping service. The noticeable increase in compliance of fire department inspection programs has proven the program's success.

The Residential Chipper Program, funded by a Bureau of Land Management grant, has been a positive way to increase public awareness of the hazards of living in the wildland urban interface and gives firefighters a way to educate them in reducing the flammable vegetation around their homes. Residents are able to talk one on one with fire department personnel on what they can do to keep their homes and communities safe by minimizing fire threat. Public education has been key in getting residents to embrace the program.

The San Benito – Monterey Unit has secured BLM grant funding for the Residential Chipping & Public Education Program through 2007. The Fire Prevention Bureau intends to continue to request federal grant funding in the future and expanding the program into other areas in which communities are at risk throughout the San Benito and Monterey counties.

## **State Highway 68 Corridor / Laureles Grade:**

This area is located in the western portion of the unit, between Salinas and the Monterey peninsula. The area is bounded on the north and west by the former Fort Ord Army Base, on the south by Carmel Valley, and on the west by Jack's Peak.

Assets at Risk (AAR) include a large number of single and multi-family residences. Highway 68 is a major travel route between Salinas and the Monterey Peninsula. Several commercial / industrial parks are located along Highway 68, including the Laguna Seca Recreation Area. Large areas of BLM wildland are located along the northern border. This area contains large plots of vegetation that have not burned in several years, resulting in a build-up of decadent mature fuels.

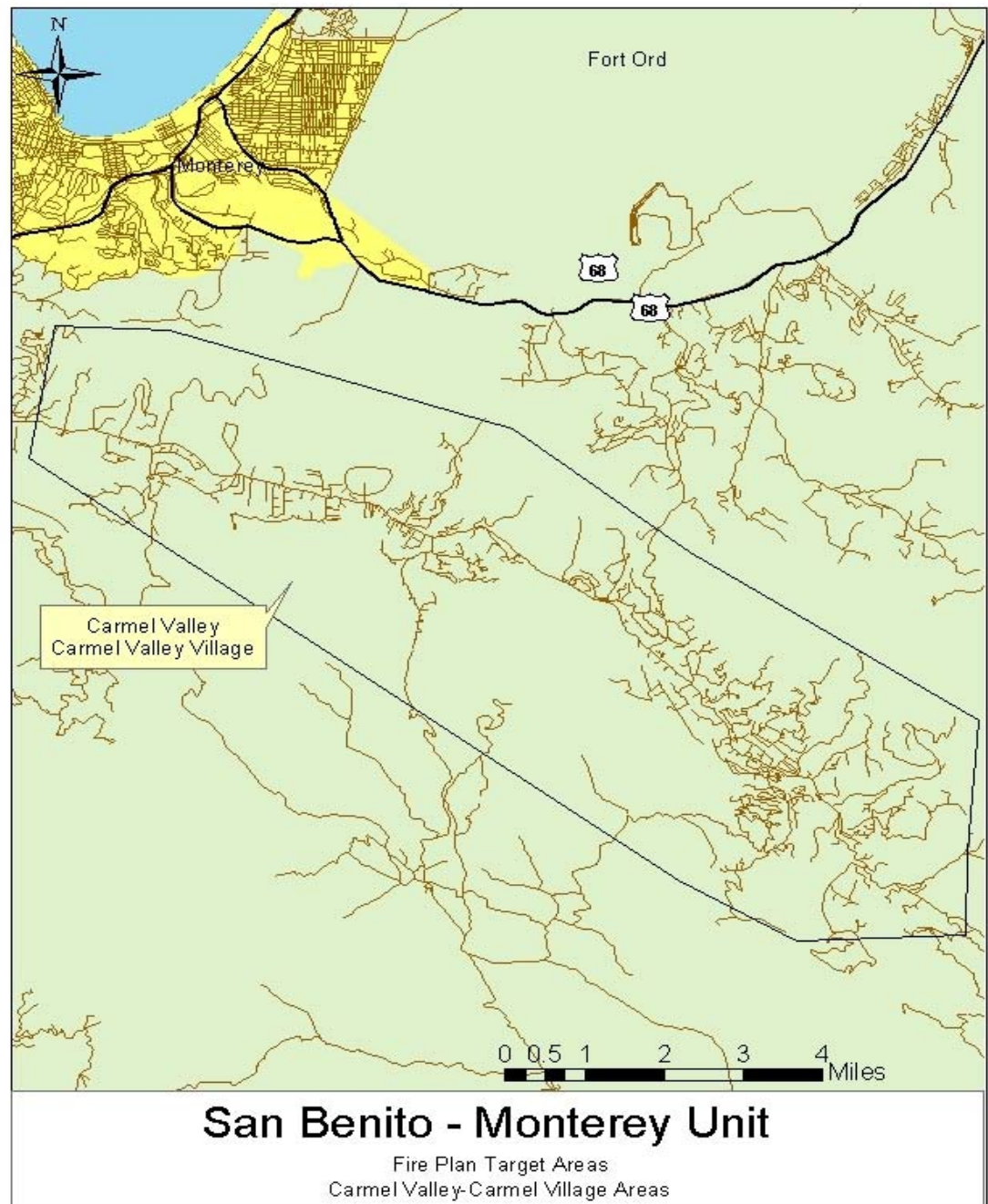
### ***Target Area Goals:***

- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify “Safe Zones” within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.



### **Carmel Valley / Carmel Valley Village:**

This area is located in the western portion of the Unit on both sides of Carmel Valley Road from State Highway 1 west to the Sleepy Hollow subdivision. It is bordered by Jack's Peak and State Highway 68 on the north, Garland Ranch Regional Park on the south, City of Carmel-by-the-Sea on the west, and Cachagua Fire Protection District on

Assets At Risk (AAR) include a large number of single and multi-family residences and other rural structures. Carmel Valley Road is a primary travel route leading to and from the Monterey Peninsula from Hwy 101 in the Salinas Valley to Hwy 1 in Carmel. Several commercial/retail centers are located along Carmel Valley Road as well as the Rancho Canada, Quail Lodge, and Carmel Valley golf courses. Several wineries are also located in the area. Large areas of National Forest wildland / wilderness are located to the south of the target area. This area contains large plots of vegetation that has not burned in several years, resulting in a build-up of decadent mature fuel.

#### ***Target Area Goals:***

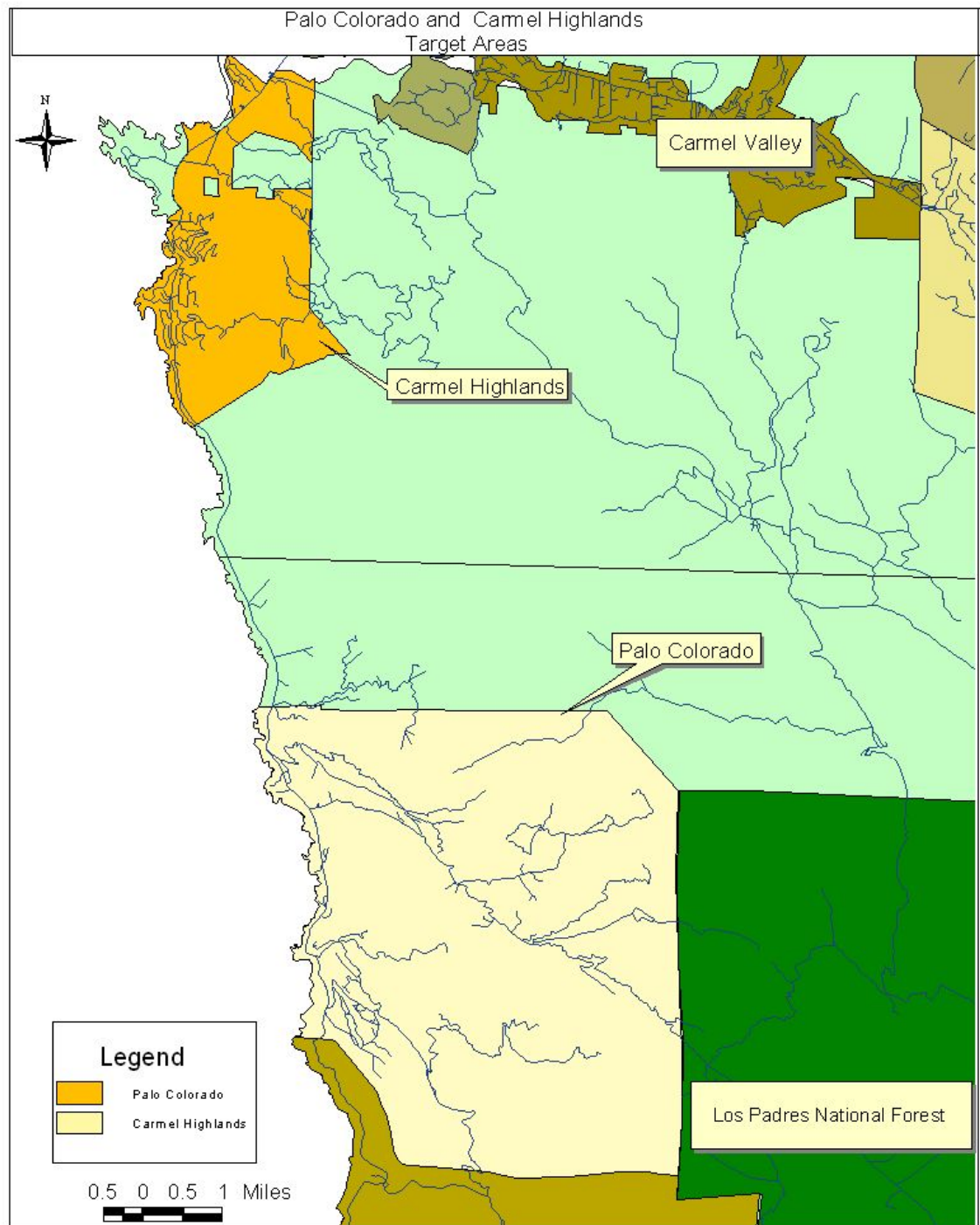
- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

#### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.

- Identify “Safe Zones” within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the Monterey Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.



## **Carmel Highlands / Palo Colorado Canyon**

This area is located in the western coastal area of the Unit, and is bordered by the City of Carmel-by-the-Sea on the north, the Los Padres National Forest on the east, Andrew Molera State Park and Big Sur on the south and the Pacific Ocean on the west.

Assets At Risk (AAR) include single and multi-family residences and other rural structures, many located in remote areas with limited access. The Point Lobos State Reserve, Garrapata State Beach, and the California Sea Otter Refuge are also within this target area. Highway 1 is the only access/egress route for the target area.

### ***Target Area Goals:***

- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

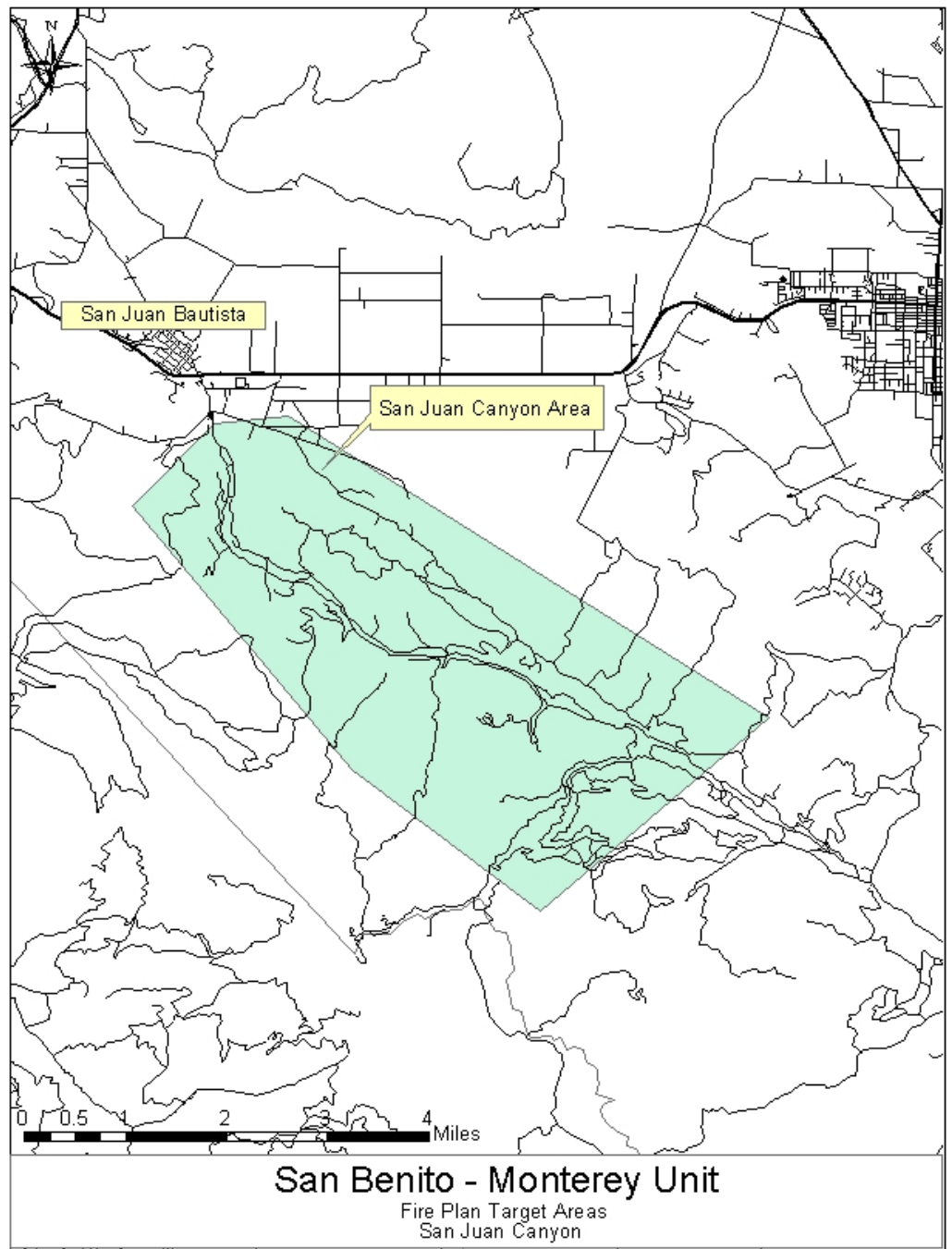
### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify "Safe Zones" within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant



- element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the Monterey Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.



## **San Juan Canyon**

This area is located southwest of the community of San Juan Bautista, and is bordered by State Highway 156 on the north, Fremont Peak on the west, Hollister Hills SORV Park on the east and Wildhorse Canyon on the south.

Assets At Risk (AAR) include single and multi-family residential structures, many located in remote areas with limited access, and several large ranches. Access to and egress from the entire target area is very limited.

### ***Target Area Goals:***

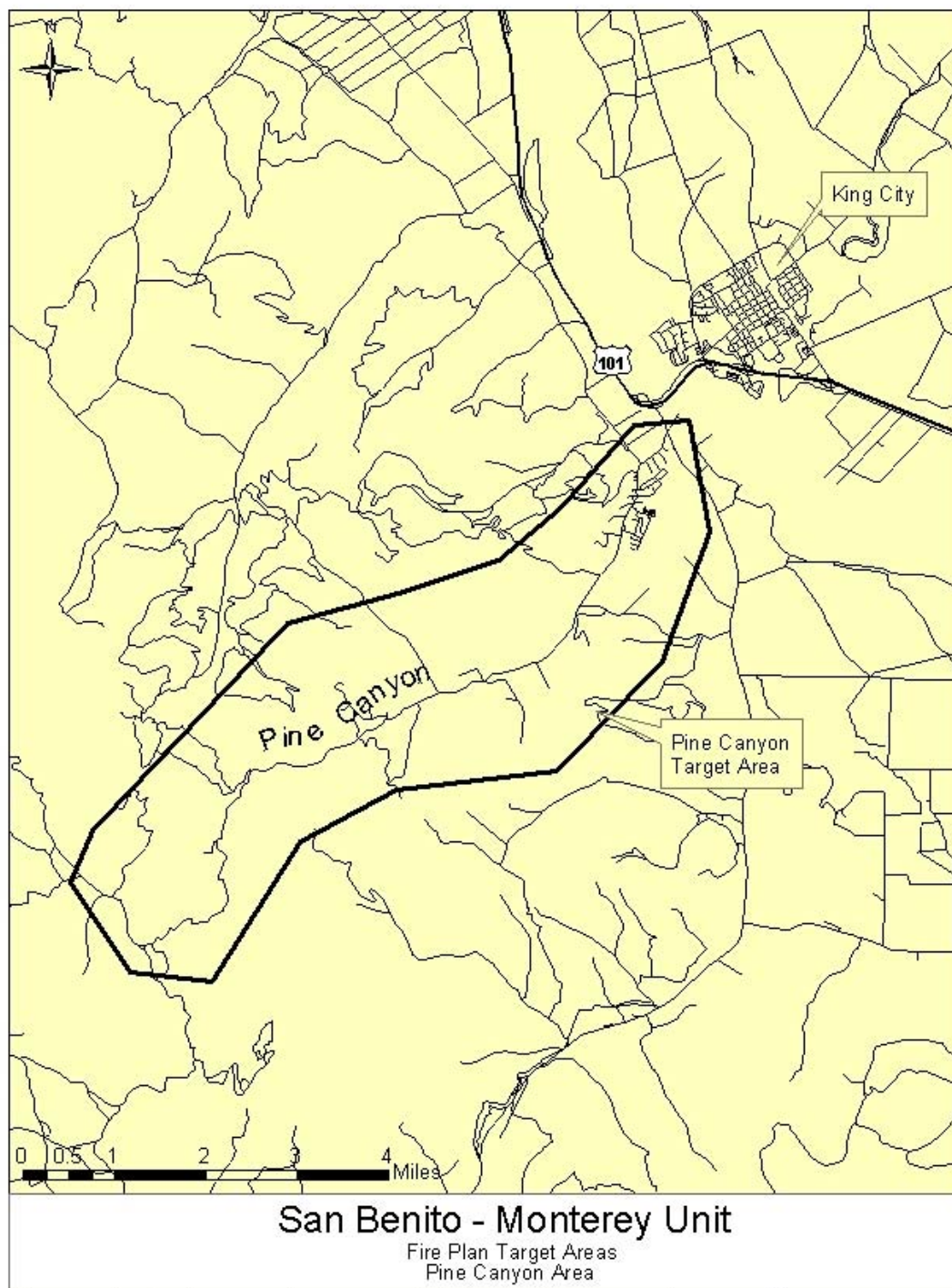
- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify "Safe Zones" within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.

- Work closely with the San Benito County Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.



## **Pine Canyon**

This area is located southwest of the community of King City in southern Monterey County. It is bordered by Hwy 101 on the north and east.

Assets At Risk (AAR) include single family and multi-unit residential structures. Access to the area is limited and the potential for entrapment of residents and emergency responders is extreme. This area continues to grow with the construction of new residential sub-division projects in the planning stages.

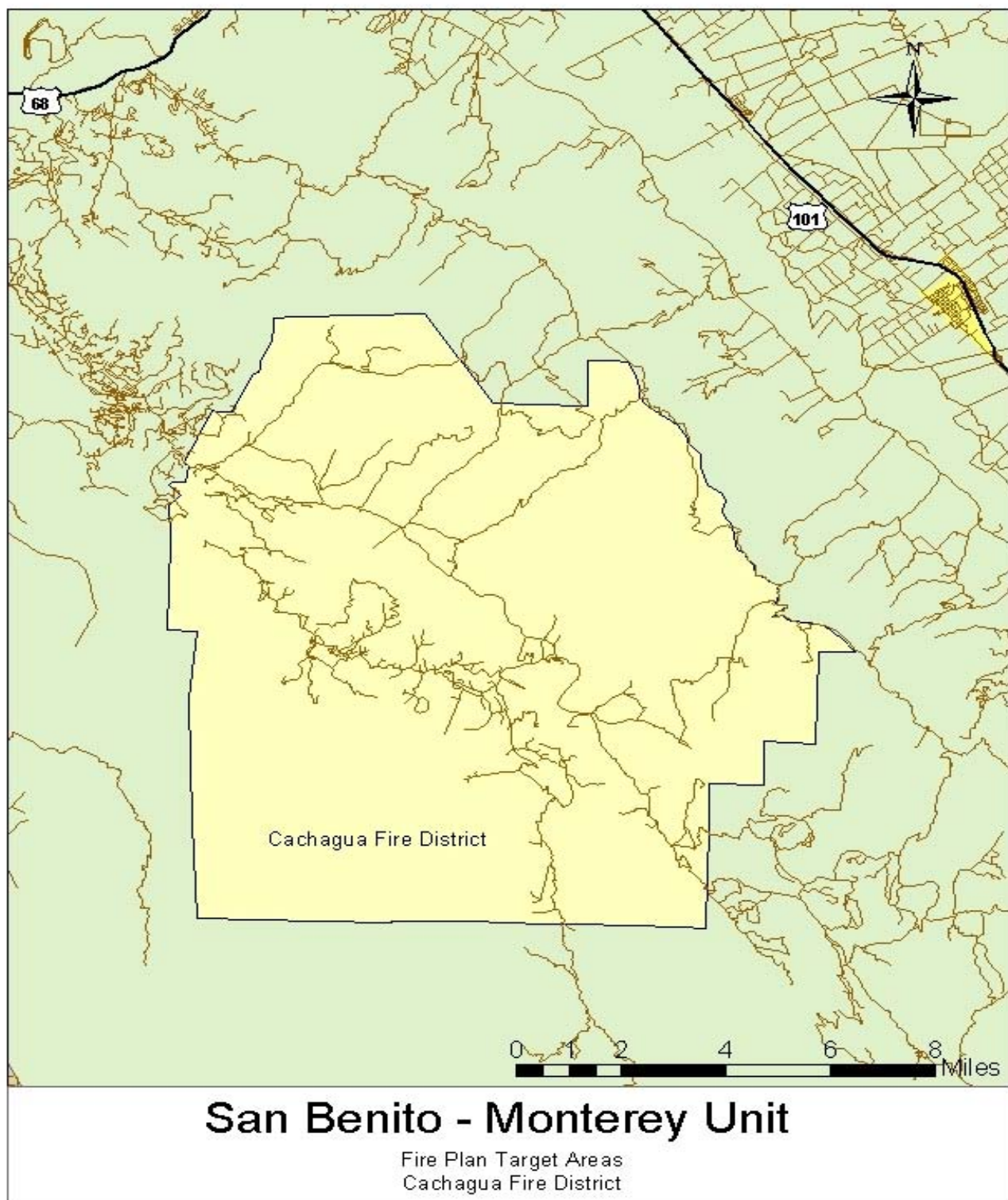
### ***Target Area Goals:***

Ideally, this area will benefit from a combination of fuel modification, aggressive inspection, emergency planning, and public education.

### ***Potential Mitigating Actions:***

The following prescriptions have been identified as potential successful methods of achieving the Unit's Fire Plan goals for this Target Area:

- Annual power line inspections to insure PRC compliance
- Targeted LE-38 inspections to achieve a minimum 33% of the structures in the Target area per year.
- Roadside fuel modification to insure egress / exit route safety and reduce the possibility of "roadside starts".
- Identify "Safety Zones" to insure that residents of the area have the ability to evacuate to a safe area during an emergency. Residents/ stakeholders will participate in the planning and placement of Safety Zones. Additionally, a "Wildland Fire / Emergency Pre-Plan" will be designed to prepare first responders and stakeholders during the initial attack of any fire. This is vital in that residents in the area are very limited when attempting to leave the area in case of an emergency
- Work closely with the Monterey County Fire Safe Council and local fire agencies to identify additional prescriptions suitable for the area.





## **Cachagua**

This target area is located in the western portion of the Unit, and is situated south of Carmel Valley Road and north of the Las Padres National Forest east of Carmel Valley Village. The area is served by the Cachagua Fire Protection District.

Assets At Risk (AAR) include single and multi-family residential structures, many which are located in remote areas with limited access, and several large ranches. Fire history in the area is minimal, leading to the overgrowth of decadent brush and light flashy fuels.

### ***Target Area Goals:***

- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
  - Increased public awareness and education relative to wildland fire threat and defensible space

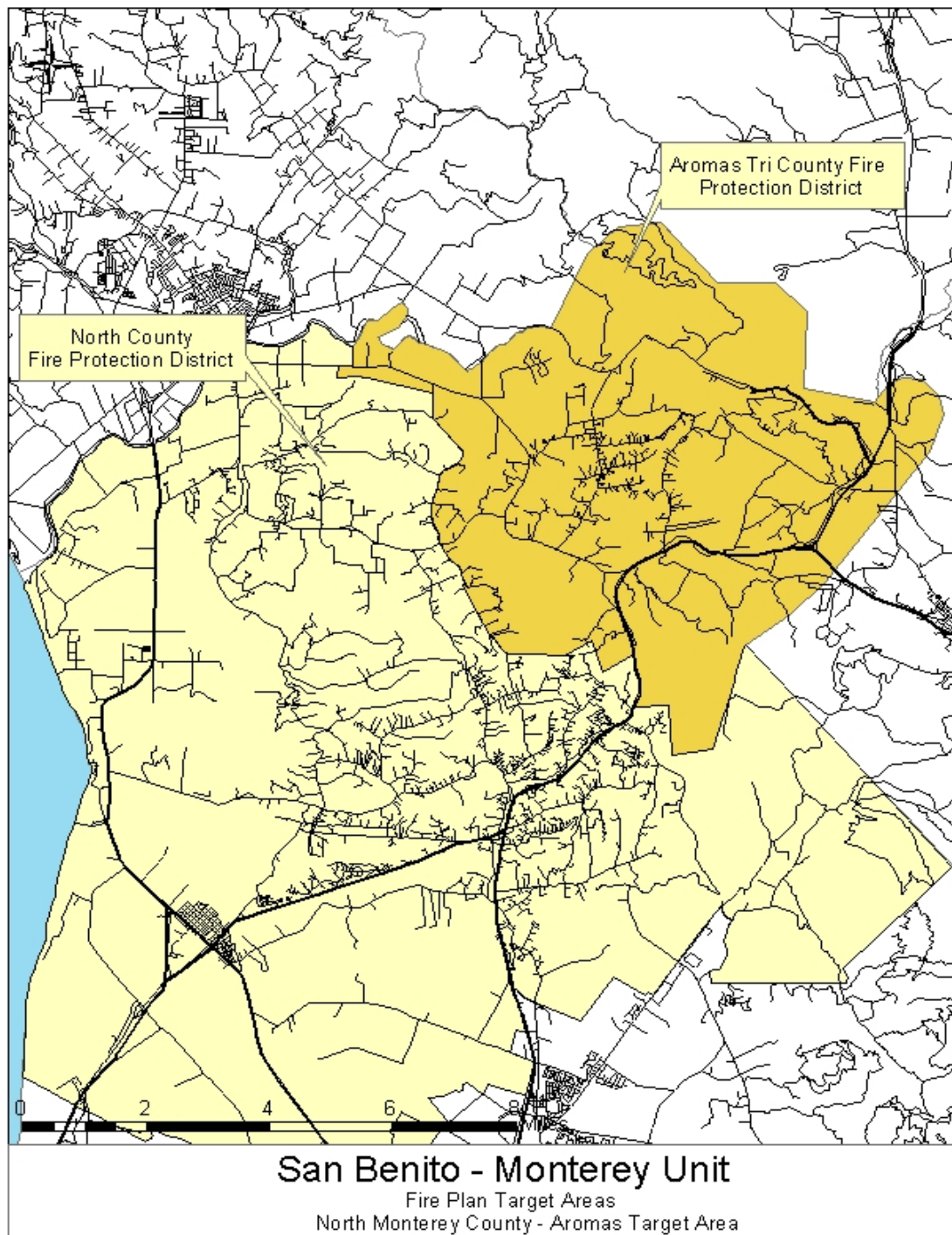
### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify "Safe Zones" within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant



- element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the Monterey Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.



## **North Monterey County / Aromas**

This area is located in the northwestern part of the Unit, situated west of State Highway 101, south of State Highway 129, north of State Highway 156, and east of the Pacific Ocean. It includes the communities of Aromas, Pajaro, Las Lomas, Prunedale, and Moss Landing.

Assets at Risk (AAR) include the four major highways noted above. Each of these routes is vital to vehicular traffic in the region. Although considered a “Rural” region, the area contains a large amount of single-family dwellings, ranchland and commercial/retail properties. Additionally, the Moss Landing power plant and Moss Landing Harbor are located on the western edge of the target area. Moss Landing and Zmudowski State beaches and the Elkhorn Slough provide scenic, recreation, and wildlife refuge. The potential for a large damaging fire in this area is increased dramatically due to the large number of eucalyptus trees throughout the area.

### ***Target Area Goals:***

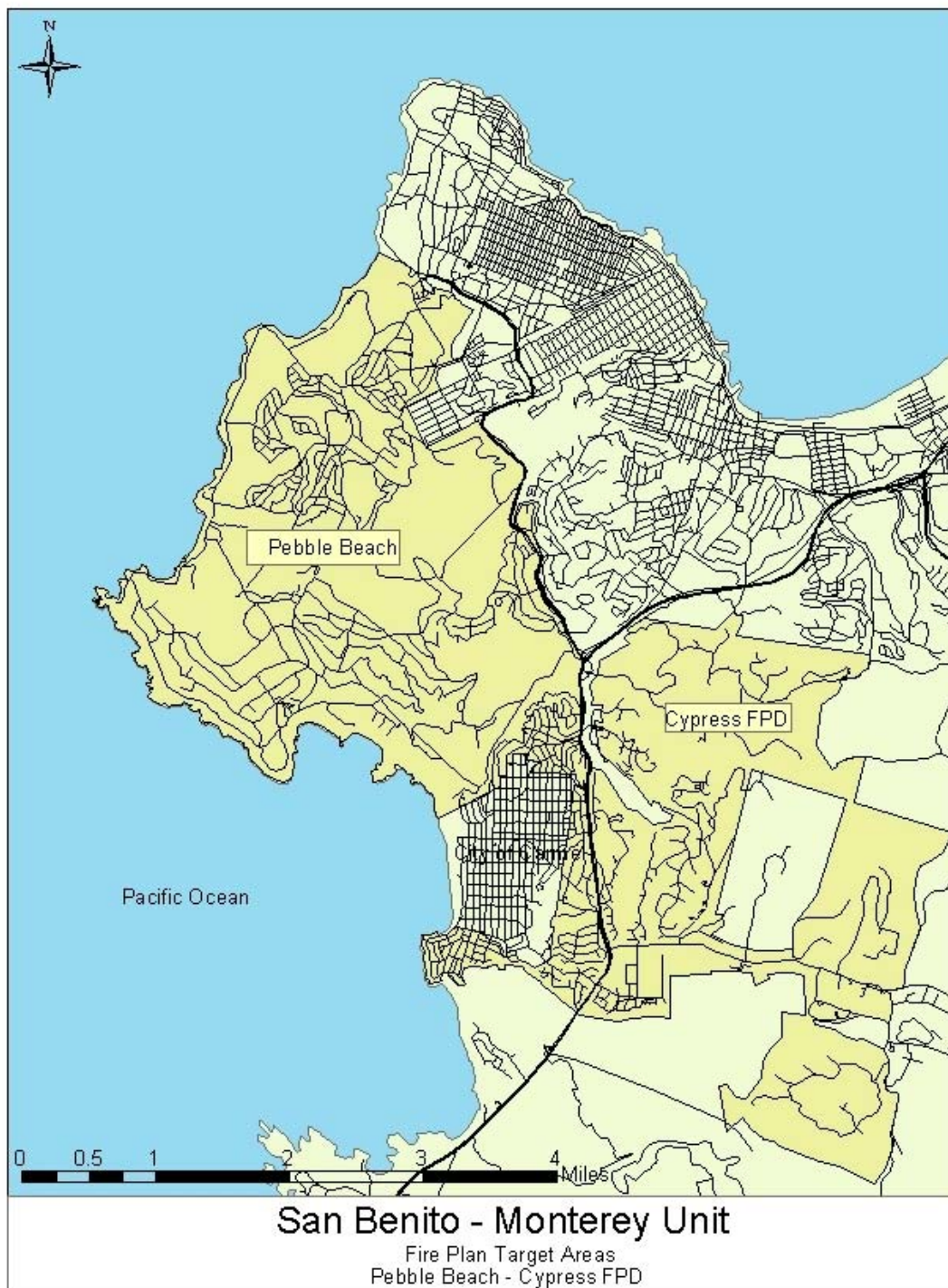
- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify “Safe Zones” within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.

- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the Monterey Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.
- Implementation and completion of the Aromas Tri-County Fire Protection District / North County Fire Protection District LE-38 Inspection program.



## **Jack's Peak / Pebble Beach**

This area is located on the Monterey Peninsula in the western portion of the Unit, and is bordered by the Pacific Ocean on the west, the City of Monterey on the north, Carmel Valley and the Highway 68 corridor on the east, and the City of Carmel-by-the-Sea on the south. This area represents one of the most scenic and affluent communities in California.

Assets at Risk (AAR) for this area are varied, including single-family residences, resort areas, championship golf courses, and areas of spectacular scenic beauty. Highway 1 is the primary north-south travel route, providing access to Big Sur and other coastal areas to the south. The potential for a large damaging fire in this area is high. The vegetation lends itself to "crown" type timber fires and the roads in the area can be confusing. The entire target area has limited access and egress.

### ***Target Area Goals:***

- Reduction of available wildland fuels, particularly adjacent to identified Assets at Risk (AAR) and primary access/egress routes
- Increased public awareness and education relative to wildland fire threat and defensible space

### ***Potential Mitigating Actions:***

The following actions have been identified to achieve the Unit Fire Plan goals for this Target Area:

- Annual inspection of all electrical transmission and distribution lines over 750 volts to ensure compliance with Public Resources Code Sections 4292-4294 for wildland fuels clearance.
- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within target area.
- Continue to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Identify "Safe Zones" within the target area to provide a safe refuge for residents in the event of a wildland fire emergency, and ensure dissemination of this information throughout the target area.

- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access and evacuation routes, safe zones, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Continue enforcement of the PBCSD Fire Defense Plan to ensure compliance and maintenance of emergency access routes, designated open space areas, and undeveloped parcels.
- Work closely with the Monterey Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.

## Appendix A-1

### 2004 Residential Fire Safety Inspection Summary by Battalion:

Remarks: San Benito-Monterey Monthly Report / Year To Date" Inspections Reporting Period: April 24- Oct 1, 2004  
Empty cells indicate "NO" report during the first 23 weeks

Fill in the "Yellow and Tan cells" below after your station name and reporting dates:

				Number of Non-Inspection Days ( Enter # of Days under Explanation )					
2 Engine Stations	Date From	Date To	Training Days	Incident Days	Equipment OOS Days	# Inspections	# Violations	Engine Hours	Other Hours
Location Name	29-Apr	1-Oct							
Carmel Hill	29-Apr	1-Oct	14	35	0	7	0		
King City	29-Apr	1-Oct	0		11	31	5		40
Hollister	29-Apr	1-Oct							
Bear Valley	29-Apr	1-Oct							
Bradley	29-Apr	1-Oct							
		1-Oct							
		1-Oct							
		1-Oct							
		1-Oct							
		1-Oct							
		1-Oct							
		1-Oct							
<b>SUB TOTALS</b>			14	35	11	38	5		40
1 Engine Stations	Date From	Date To	Training Days	Incident Days	Equipment OOS Days	# Inspections	# Violations	Engine Hours	Other Hours
Location Name	10-May	1-Oct							
Lockwood	10-May	1-Oct				70			
Parkfield	10-May	1-Oct	63	43	3	21	2		
Gonzales	10-May	1-Oct	21	17	0	67	4	136	
Beaver Dam	10-May	1-Oct	14	5	4	2	0	2	
Antelope	10-May	1-Oct		12	3	102	24	39	
Tularcitos	10-May	1-Oct							
Aromas	10-May	1-Oct							
Carmel Highlands	SRA in Sced A	1-Oct				66	8	5	2
Rio Road	SRA in Sced A	1-Oct				67	7	6	2
Pebble Beach	SRA in Sced A	1-Oct	91	86	0	794	102		
<b>SUB TOTALS</b>			189	163	10	1189	147	188	4
<b>TOTAL BOTH 1 &amp; 2 ENG. STA.'s</b>			203	198	21	1,227	152	188	44

Note: If alternate method of compliance with Gov's Exec. Order was used, identify under location name. I.E. VIPs, FFI w/PU, or engines from single engine stations.

Note: Engine hours represents time on road regardless of number of staffing, other hours would represent station preparation time, Data entry and Inspection

time such as VIP or person in a pickup	
Year to Date - Inspections Unit Wide	
From:	From:
04/29/04 to	04/29/04 to
10/1/2004	10/1/2004



## Appendix A-2

### **Stakeholders:**

Stakeholders are defined as any person, agency or organization with a particular interest, or “*stake*,” in fire safety and protection of assets from wildfires.

- **Local Fire Agencies**

- Big Sur Volunteer Fire Brigade
- Cachagua Fire Protection District
- Carmel-By-The-Sea Fire Department
- Carmel Valley Fire Protection District
- Cypress Fire Protection District
- Gonzales Fire Department
- Greenfield Fire Protection District
- King City Fire Department
- Marina Department of Public Safety
- Mid-Coast Fire Brigade
- Monterey Fire Department
- Monterey Peninsula Airport District Fire Department
- North County Fire Protection District
- Pebble Beach Community Services District
- Pacific Grove Fire Department
- Presidio of Monterey Fire Department
- Salinas Fire Department
- Salinas Rural Fire Protection District
- Seaside Fire Department
- Soledad Fire Department
- South Monterey County Fire Protection District
- United States Dept. of Agriculture - Forest Service
- United States Bureau of Land Management
- Hollister Fire Department
- San Juan Bautista Fire Department

- **Fire Safe Councils:**

Monterey Fire Safe Council  
Box 4479  
Carmel, CA 93921  
[rawitzer@mbay.net](mailto:rawitzer@mbay.net)  
Office: (831) 455 2498

The Monterey Fire Safe Council is very active with projects in both the planning and implementation stage. MFSC projects include:

- A. Burn Advisory Group (Smoke Management Workgroup)
- B. BLM Borderlands Fuel Break
- C. Monterey/Reliz DFPZ
- D. White Rock Strategic Fuel Break
- C. Manzanita Park Strategic Fuel Break
- D. Big Sur Ridge DFPZ
- E. RTG Demo Garden
- F. Salinas Rural FD Demo Garden
- G. Indian Springs Strategic Fuel Break

San Benito Fire Safe Council  
San Juan Bautista, California  
Wendy Sarsfield, Chairperson  
[jwsarsfield@sbcglobal.net](mailto:jwsarsfield@sbcglobal.net)

The San Benito Fire Safe Council is very active with projects in both the planning and implementation stage. SBFSC projects include:

- A. Hollister Fire Station #2 - Fire Safe Demo Garden
- B. Aromas Fire Station - Fire Safe Demo Garden
- C. San Juan Canyon Safety Marker project
- D. GIS / Mapping project
- E. Residential Curbside Chipping Program
- F. Fire & Life Safety Message signs / Public Education
- G. Planning of Firewise Conference locally

- **Government Agencies**

California Department of Parks and Recreation  
California Department of Transportation (CalTrans)  
Monterey County Regional Parks District  
Monterey County Department of Public Works  
San Benito County Dept. of Parks and Recreation  
San Benito County Dept. of Public Works

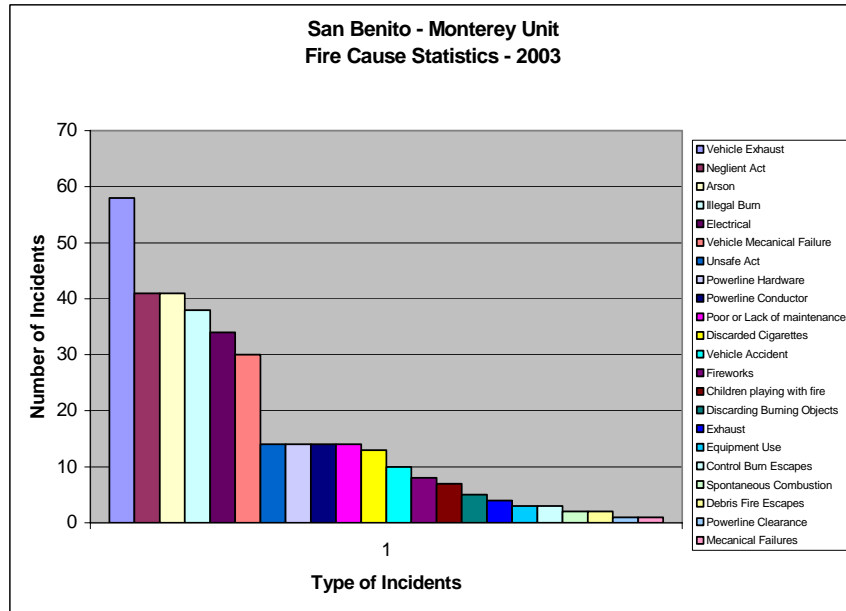
- **Other Stakeholders**

Pacific Gas & Electric Co.  
Cal-Am Water

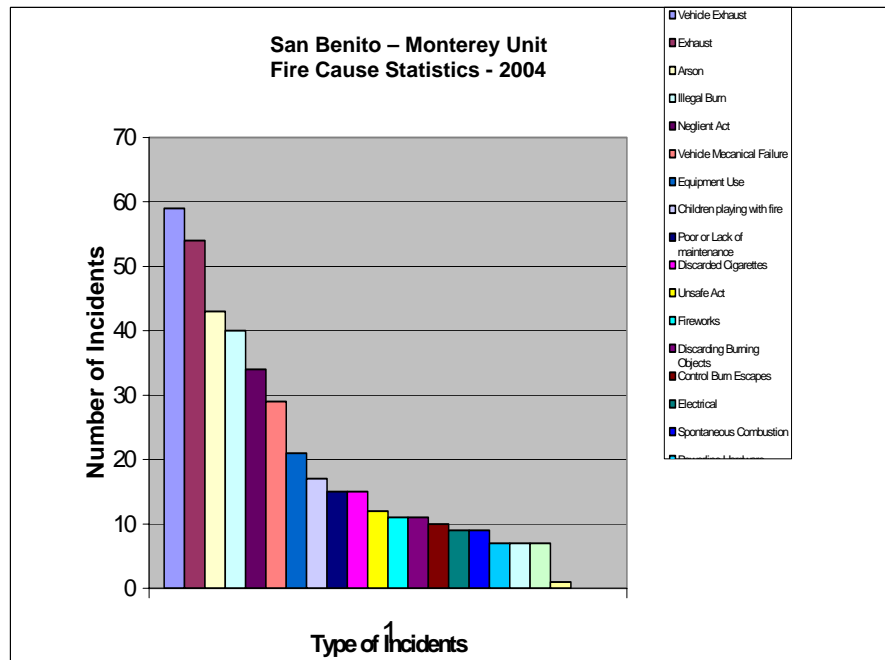
## Appendix A-3

### Fire Cause Summary:

Vehicle Exhaust	58
Negligent Act	41
Arson	41
Illegal Burn	38
Electrical	34
Vehicle Mechanical Failure	30
Unsafe Act	14
Powerline Hardware	14
Powerline Conductor	14
Poor or Lack of maintenance	14
Discarded Cigarettes	13
Vehicle Accident	10
Fireworks	8
Children playing with fire	7
Discarding Burning Objects	5
Exhaust	4
Equipment Use	3
Control Burn Escapes	3
Spontaneous Combustion	2
Debris Fire Escapes	2
Powerline Clearance	1
Mecanical Failures	1
<b>Total</b>	<b>357</b>



Vehicle Exhaust	59
Exhaust	54
Arson	43
Illegal Burn	40
Negligent Act	34
Vehicle Mechanical Failure	29
Equipment Use	21
Children playing with fire	17
Poor or Lack of maintenance	15
Discarded Cigarettes	15
Unsafe Act	12
Fireworks	11
Discarding Burning Objects	11
Control Burn Escapes	10
Electrical	9
Spontaneous Combustion	9
Powerline Hardware	7
Powerline Conductor	7
Vehicle Accident	7
Mecanical Failures	1
Debris Fire Escapes	0
Powerline Clearance	0
<b>Total</b>	<b>411</b>



## Appendix A-4

### **Vegetation Management Program:**

The Vegetation Management Program (VMP) is currently in transition. In 2004 VMP was impacted by, among other things, changes in the state budget, changing Unit priorities and assorted other constraints. The objectives of past projects typically were, among other things, fuel reduction, range improvement, wildlife habitat improvement and increased water yield. However, due to changing priorities and the current version of the Unit Fire Management Plan, VMP may begin to evolve more toward the following:

- Smaller projects near targeted assets at risk.
- Move away from an emphasis on broadcast burning and move toward smaller pile burning and possibly mechanical fuel treatment.
- The program may be limited to simply providing wildland safety and protection zones near high value assets.
- Potential future projects may involve more pre-screening in an effort to more effectively select projects that accommodate the Unit Fire Management Plan.

Where possible, the goal in the Unit is to continue traditional controlled burning in areas of the Unit. However, in response to the urban interface issues and assets at risk, VMP may now focus more on small scale, intensive treatment projects near or adjacent to homes. This approach comes with a price in that it is riskier, requires more planning, more resources and, inevitably, more time to physically pursue the project. These types of projects require intensive use of personnel and/or mechanical equipment. The result is small areas treated at high expenses compared to large-scale burning projects.

Unexpected opportunities can alter vegetation management priorities. As the majority of VMP projects are located on private lands with the cooperation of private landowners, an unexpected request for a project may alter priorities. If a landowner in an area designated for fuels reduction efforts expresses interest in a project, it may move a project in an area not designated for fuels reduction efforts to a lower priority. Inevitably, VMP will most likely continue to evolve over time in an effort to keep up with an ever-changing world.

## Appendix A-5

### PEBBLE BEACH FIRE DEFENSE PLAN

# ***“FIRE DEFENSE PLAN”*** *for* **PEBBLE BEACH**

*including*  
**EMERGENCY ACCESS ROUTES FOR  
DESIGNATED OPEN SPACE AREAS  
AND UNDEVELOPED PARCELS**



Adopted: June 1988  
Revised: August 1994  
Revised: October 2000  
Revised: November 2002  
Revised: May 2005

## INTRODUCTION

The ***Fire Defense Plan for Pebble Beach*** (“FDP”) has been created to address fire and life safety issues within the Del Monte Forest as it relates to wildland fire emergencies. Unlike earlier editions of the FDP, this revision includes land treatment measures designed as part of the fire defense system to facilitate fire control.

The first line of defense for every resident of Pebble Beach is to maintain their property in accordance with State and local fire standards for fuels control, access, and building materials. Fire Safe California Residential Fire Inspections are a key element in educating our residents on taking personal actions to keep their families and homes safe from wildfire. To that end, education for residents and visitors of the Forest should be made a high priority.

To address fire and life safety related to wildland fires, this Plan addresses emergency access and fuel treatment standards for the primary open space areas of the Huckleberry Hill Natural Area/ SFB Morse Botanical Preserve, Pescadero Canyon and Navajo Tract open spaces, as well as for undeveloped vacant parcels. In overseeing implementation of this Plan, the Fire Department will consider the effects that fire hazard mitigation work has on the environment, endangered species, and other natural resources.

This FDP is a living policy document and as required by the Board of Directors of the Pebble Beach Community Services District, it shall be reviewed regularly by the Pebble Beach Fire Department.

Sam L. Mazza  
Fire Chief

## TABLE OF CONTENTS

<b>I.</b>	<b>Emergency Access Roads System</b>	<b>Page</b>
	A. Emergency Access	4
	1. Fire Road Requirements	
	2. Fire Break Requirements	
	3. The Haul Road Fire and Fuel Break	
	4. Road Identification	
	5. Maintenance	
	6. Fire Road Improvement Projects	
<b>II.</b>	<b>Protection of Environmentally Sensitive Plant Species</b>	<b>7</b>
	A. Protection of Environmentally Sensitive Plant Species	
	B. Authority to Stop Work	
	C. Road Grading Requirements	
<b>III.</b>	<b>Target Areas</b>	<b>9</b>
	A. SFB Morse Botanical Preserve / Huckleberry Hill Natural Area	
	1. Los Altos Drive Fire Break on Huckleberry Hill	
	2. The Haul Road	
	B. Pescadero Canyon	
	1. Perimeter	
	2. Fire Road 23 Shaded Fuel Break	
	3. Sunridge Pines Fuel Break	
	4. Carmel Woods	
<b>IV.</b>	<b>Undeveloped, Vacant or Open Space Parcels</b>	<b>13</b>
	Vacant Lot Program	
	A. Open Space Review	
	B. Lot Clearance Standards	
	C. Residential Vacant Lot Program	
	D. Open Space Fire Hazard Reduction	
<b>V.</b>	<b>Appendix</b>	
	A. Defense Areas Location Map	
	B. Huckleberry Hill Area	



- C. Pescadero Canyon Area
- D. Navajo Tract Area
- E. Undeveloped Vacant Residential Parcels
- F. Undeveloped Open Space Parcels
- G. Projected 2005 and 2006 Projects
- H. Public Resources Code 4291

## **I. Emergency Access Roads System**

### **A. Emergency Access**

A network of roads shall be created, inspected and maintained to provide safe and ready access for emergency equipment. This road system shall consist of Fire Roads and Fire Breaks as described below.

#### **1. Fire Road**

Fire Roads are identified in **BLUE** on the attached maps labeled Appendix B, C and D.

The requirements for a fire road are:

- Minimum 12-foot roadbed width

- Minimum 13' 6" vertical clearance over entire width and length, including any turnouts or turnarounds

- Minimum 30-foot turn radius

- No "islands" at intersections

- Drainage and erosion measures conforming to best engineering practices

- Minimum gate width of 12 feet, fully open

- Locked gates shall have a Fire Department Knox padlock.

#### **2. Fire Break**

Fire Breaks are identified in **RED** on the attached maps labeled Appendix B, C and D.

In addition to the above requirements for Fire Roads, all fuels within 20 feet of both road edges in emergency access roads which have been identified as Fire Breaks shall be modified or removed as follows:

- Cut and remove all brush.

- Remove all dead standing trees.

- Remove all dead fallen material.

- Remove all dead tree limbs within 10 feet of ground level.

- Remove all other tree limbs within 5 feet of ground level.

All cut material shall be chipped and spread or removed from the area.

#### **3. Haul Road Fire and Fuel Break**

The Haul Road Fire and Fuel Break is identified in **RED** on the attached map labeled Appendix B.

The Haul Road Fire Road and Fuel Break shall be maintained within the standards outlined in Fire Road and Fire Break above with the following modifications:

The overall width of the Haul Road project shall not exceed 52 feet overall width.

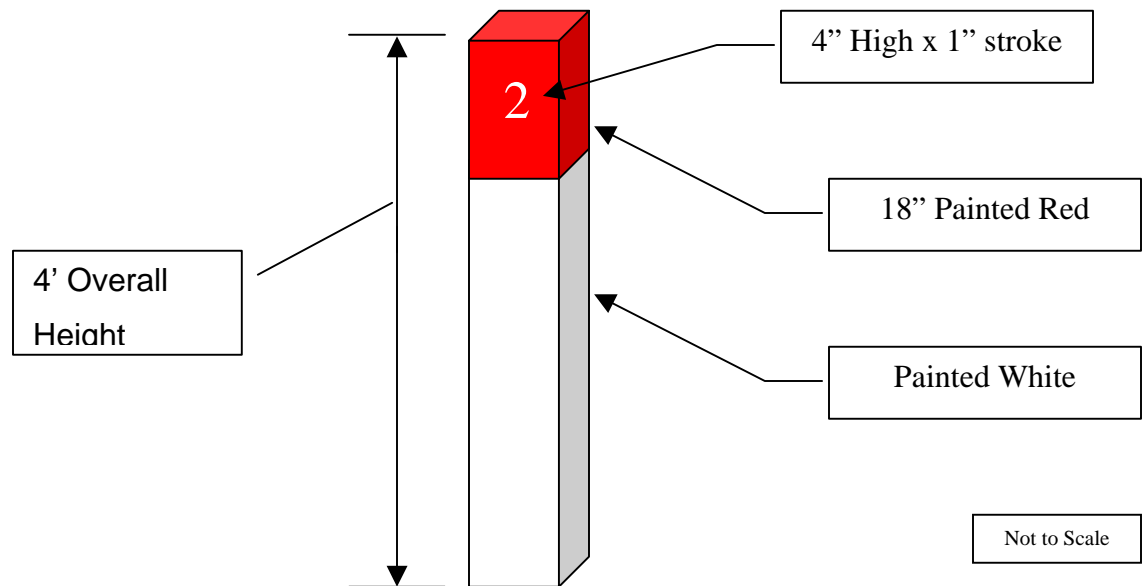
A minimum 24-foot roadbed width shall be maintained.

The width of the fuel modification area on each side of the road shall be determined by the Fire Chief based on the predominate slope.

## **I. Emergency Access Roads System (Cont'd)**

#### 4. Road Identification

At the direction of the Fire Department, all emergency access roads shall be numbered and identified with a numbered road sign meeting the following minimum requirements. Minimum 4" high and 1" stroke white numbers routed on all sides at the top of a 6" x 6" post exposed at least four feet above ground level. The top 18" of the post shall be painted red.



## 5. Maintenance

All emergency Fire Roads and Fire Breaks shall be maintained to the above minimum standards by June 1 of each year.

## 6. Fire Road Improvement Projects

- a. Access connecting Fire Road 23 to 17 Mile Drive (see App. C) shall be constructed opposite the entrance to the Carmel Hill Fire Station over a route that more or less follows the partially existing old roadbed and that minimizes excavation. An emergency access gate shall be installed with minimum 30-foot setback from the edge of 17 Mile Drive and be at least 12 feet wide fully open.

- b. The eastern portion of Fire Road 23 is located on an existing PBCSD sewer easement. Concrete and metal sewer clean-outs shall be adjusted to match grade. Roadbed grade must also be selectively raised and widened to achieve a minimum width and elevation sufficient to allow passage by emergency fire equipment during the declared fire season and to prevent loss of fill and deter erosion into the culverted swale crossing.

## **I. Emergency Access Roads System (Cont'd)**

### **6. Fire Road Improvement Projects**

- c. At the eastern end of existing Fire Road/ Fire Break 23 on the sewer easement, emergency access shall be provided that connects to Fire Road 22 over the existing ungraded four-wheel drive route. This connecting access shall remain ungraded and maintained only by the mowing of dry grass as necessary, except for:
  - 1. Minimal grading and fill retention to effect a safe turn from the eastern end of the current Fire Road /Fire Break 23 and sewer easement onto the ungraded slope, and installation of a culvert in the drainage channel that carries runoff from Sunridge Road and Highway 68.
- d. The Midwood Drive gate entrance to Fire Road/ Fire Break 20 shall be reconstructed to current state standards applicable to State Responsibility Areas (SRA) lands pursuant to Public Resources Code 4290. This will require a wider and more perpendicular approach to the entrance gate, with a minimum gate setback distance of 30 feet from the edge of Midwood Drive.
- e. Fire Road/ Fire Break 20 shall be re-aligned to allow for the creation of a new residential parcel where it intersects Sunridge Road.
- f. Fire Road 24 shall be established on the parcel within the easement acquired in the name of the PBCSD and behalf of the Del Monte Forest Foundation that connects Carmel Woods to Pescadero Canyon. This connecting access shall remain ungraded and maintained only by the mowing of dry grasses at least once annually.

## **II. Protection of Environmentally Sensitive Plant Species**

### **A. Preservation**

This section is intended to clarify standard operating procedures for safeguarding threatened or endangered environmentally sensitive plant species, whenever possible, without unduly compromising fire hazard clearance standards.

The Open Space Advisory Committee (“OSAC”) developed that part of the Del Monte Forest Land Use Plan that identifies the plant species within the Del Monte Forest that are considered environmentally sensitive.

Some environmentally sensitive plant species have been identified within the open space areas covered by this plan. All Fire Defense Plan standards shall continue to apply. However, the property owner and Fire Department will coordinate efforts to avoid cutting or removing environmentally sensitive species.

When fire protection clearance work must be undertaken within such areas, the PBCSD Fire Department shall supervise such work, and the following procedures shall apply:

The property owner shall designate a person who has knowledge of the property, terrain, natural habitat and access. That person shall coordinate with fire department inspection personnel. The property owner’s designated person shall be responsible for notifying OSAC at least two weeks before the planned clearance work. The OSAC may appoint one of its members to provide such onsite inspection of the work as it deems necessary, or notify the property owner to employ at his/her own expense, another biologist or naturalist acceptable to OSAC.

### **B. Authority to stop work**

The property owner’s and OSAC’s representatives each will have authority to stop cutting or removal work in progress, if they believe environmentally sensitive species could or are being damaged or endangered. To do so, they will notify the onsite fire department officer of the area of concern. The fire department will place yellow security tape around the designated plant species or the area specified by the property owner or OSAC representative. The fire department’s officer in charge will give orders not to disturb the identified area.

Clearance work will not proceed until the Fire Chief, or the Fire Chief’s designated representative has reviewed alternative clearance requirements with the property owner and OSAC representative, and the parties have reached agreement on the specific plan of action.

## **II. Protection of Environmentally Sensitive Plant Species (Cont'd)**

### **C. Grading**

In order to curtail erosion on Fire Roads and Fire Breaks within the Fire Defense Plan areas, the property owner shall establish and maintain water bars at regular intervals on the roads prior to the start of winter rains. If erosion occurs, gullies in the roads shall be filled with suitable imported material to repair the roads.

Grading of road surfaces will be limited to a level that does not reduce the overall elevation of the fire road, or in such a way as to cause the surface of the fire road to convey significantly more water than it would have prior to grading.



### III. Target Areas

#### A. SFB Morse Botanical Preserve / Huckleberry Hill Natural Area

##### 1. Los Altos Drive Fire Break on Huckleberry Hill Natural Area

###### a. Fire Break

Maintain the Fire Break immediately below the paved road extending 100-150 feet in width, slope distance, from the edge of the pavement. The varying width is to reduce the visual straight-line effect of the fuel break which.

The Fire Break width is to be the greatest on steeper slopes. An occasional tree shall be retained in the Fire Break area to reduce the visual and aesthetic impacts.

In all other respects, the Fire Break shall be constructed to Fire Defense Plan Fire Break standards, with the additional requirement that all trees less than eight (8) inches in diameter at breast height shall be removed, except as described above in this section.

The Fire Break area may be planted with native vegetation, such as Shaggy-Bark Manzanita (*Arctostaphylos Tomentosa*), to reduce erosion as long as vegetation is maintained less than eighteen (18) inches in height.

###### b. Shaded Fuelbreak:

Continue the construction of the Shaded Fuel Break below the Fire Break extending no more than two hundred fifty (250) feet, slope distance, from the edge of the pavement. The management objective within this Shaded Fuel Break is to accelerate the natural selection and pruning process of the forest stand and to promote long-term stand health and vigor.

The first one hundred fifty feet of the Shaded Fuel Break shall have an average tree spacing of approximately sixteen (16) feet or more. From one hundred fifty feet from the road edge to two hundred fifty feet from the road edge, the average tree spacing shall incrementally be adjusted by thinning operations to approximately 12 feet or more. Trees should be thinned as individuals, however the leaving of clumps or groups of trees will be encouraged to promote an aesthetically pleasing stand. In conjunction with the thinning, trees over ten (10) feet in height should be pruned so that the foliage on the lower one-third (1/3) of the bole is

removed. In no case should more than sixty (60) percent of the existing crown canopy be removed.

Ground fuels shall be removed in the Shaded Fuel Break using the Fuel Break standard identified in Section 4. The remaining ground fuels shall be maintained at a height of less than eighteen (18) inches.

The Shaded Fuel Break shall be evaluated every five years to determine the appropriate spacing requirements for future thinning, insuring that overcrowding does not occur.

### **III. Target Areas (Cont'd)**

- A. SFB Morse Botanical Preserve / Huckleberry Hill Natural Area
  - 2. Los Altos Drive Fire Break on Huckleberry Hill Natural Area
    - c. Residential Inspections  
All properties on Los Altos Drive and Costado Road shall be inspected annually for proper fire safe clearances.
  - 3. The Haul Road
    - a. The Haul Road has been identified by the Fire Marshal as a Fire Road and Fuel Break to meet two primary goals.
      - 1. This is the first line of defense to hold a fire in the lower Huckleberry Hill Natural Area from reaching the upper area.
      - 2. This road shall serve as a major means of access for emergency response agencies should an evacuation become necessary.
    - b. The Haul Road Fire and Fuel Break shall be maintained as identified in Section I-A-3 on page 4 of this Fire Defense Plan.
    - c. Trees in the area between the downslope edge of the Haul Road Fire and Fuel Break and Fire Road 4 shall be thinned incrementally to achieve the approximately 16' average spacing specified in III.A.1.b. above for forest within 150' of edge of pavement of Los Altos Drive.

### III. Target Areas (Cont'd)

#### B. Pescadero Canyon

The Pescadero Canyon portion of the Fire Defense Plan is shown on the accompanying map in Appendix C.

##### 1. Perimeter Fire Protection Zones

Fuel modification and removal shall be required along the roadways and on all residential parcels located between 4047 and 4198 Sunridge Road as well as all residential parcels on Sunset Lane. Fuel modification and removal activities shall not be permitted that will cause erosion on any property.

##### Roadways:

Along roadways bordering open space areas, fuels shall be modified as follows:

Within 20 feet of roadway edges, the "Fire Break" standard of the FDP shall apply except that low densities of soft shrubs or isolated hard shrubs with adequate clearance from overtopping trees may be left.

On slopes over 30% the fuel modification standards specified in the "Shaded Fuel Break" section below shall apply.

##### Residences:

Where habitable structures border the undeveloped forest, fuel reduction zones shall be established extending 100 to 150 feet in ground measurement immediately below such structures. The varying fuel reduction widths are intended to reduce the visual straight-line effect of the fuel reduction zone areas and to account for the variable threat effects created by topography. Fuel reduction is to be the greatest on steeper slopes and/or below structures with greatest exposure to the effects of radiant heat due to topography and structural components.

Fuel modification on developed property shall be consistent with the requirements of State Forest and Fire Laws (Public Resources Code 4291).

The Fire Chief may find that in order to abate potentially serious fire hazards additional fuel modification is required on open space properties adjacent to habitable properties. In such cases, the Fire Chief shall notify the owner of the property, upon which a potentially serious fire hazard is located, of the location and extent

of the additional area to be treated in accordance with fuel modification standards specified in Section IV, C. Alternatively, the Fire Chief may specify other measures that will achieve comparable results, following consultations with and agreement by the property owner.

Three specific targeted areas are listed in sub sections 2, 3 and 4 below.

### **III. Target Areas (Cont'd)**

#### **B. Pescadero Canyon**

##### **2. Fire Road 23 Fuel Break**

A shaded fuelbreak shall be established and maintained adjacent to Fire Road 23. This Fuel Break shall extend a minimum of one hundred (100) feet, slope distance, from the lower edge of the residential parcel lines.

The over all depth of the Fuel Break may include the width of the Fire Road.

##### **3. Sunridge Pines Fuel Break**

There are a total of twenty-nine residential parcels in the Sunridge Pines Conservancy. These residents are responsible for the common parcels that surround the residential parcels, as shown in Appendix C.

A Fuel Break shall be created and maintained throughout the Conservancy parcels and it shall extend thirty feet below the utility easement that exists behind certain residential parcels. This access shall be maintained to Clearance Standard #4 that is outlined in this document, on page 15.

The PBCSD agrees to “finance” the costs of contracted maintenance work that is to be repaid by property owners through annual PBCSD invoices or assessments.

##### **4. Carmel Woods Fuel Break Access**

The PBCSD has acquired an easement beginning outside of the District boundary, which provides access into the eastern perimeter of Pescadero Canyon from Carmel Woods. This has been provided by Monterey County with the specific intent of facilitating access for fire hazard mitigation and suppression.

This access shall be maintained to Clearance Standard #1 that is outlined on page 14 of this document. The PBCSD shall be responsible for the maintenance of this easement and shall allow the Del Monte Forest Foundation to use the easement to carry out fire hazard mitigation measures.

##### **5. The PBCSD Fire Marshal in consultation with the Del Monte Forest Foundation and the Open Space Advisory Committee shall review the area of Pescadero Canyon that borders Carmel Woods. The primary focus of this review is to determine what fuel hazard reduction may be required, the most appropriate means and**

methods of achieving the required reductions and an approximate timeline for meeting there requirements.

## **Undeveloped, Vacant or Open Space Parcels.**

### **A. Vacant Lot Program**

The following fire safety requirements shall apply to vacant residential parcels, or other undeveloped parcels as determined by the Fire Chief:

1. Vacant Lots less than one acre in size shall be cleared to Clearance Standard #1 as outlined in Section C, below.
2. Parcels one acre and larger shall be cleared to Clearance Standard #2 as outlined in Section C, below.
3. The Fire Marshal shall be responsible for identifying each undeveloped parcel to which these requirements shall apply, and thereafter listing each of these parcels in Appendix E of this Fire Defense Plan.

### **B. Open Space Fire Hazard Reduction**

The Fire Chief, or the Fire Marshal as designated by the Fire Chief of the Pebble Beach Fire Department, shall meet at least once per calendar year with representatives of the Del Monte Forest Foundation and the Pebble Beach Company, to discuss open space parcels, their hazards and potential mitigation actions.

1. A complete list of open space parcels, regardless of ownership, shall be created by the Fire Marshal and shared between the parties. This list which shall be included in Appendix F of this Fire Defense Plan shall include:
  - a. Assessors Parcel Number
  - b. Property Owner or Responsible agency
  - c. Physical location
  - d. Size in acreage
  - e. Special concerns
  - f. Clearance standard.
  - g. Expected date of fire hazard mitigations.

### **C. Clearance Standards**

The following fire safety clearance standards shall apply to all vacant parcels as determined by the Fire Chief:

#### *1. Standard #1*

*Undeveloped parcels less than one acre.*

Clearance shall be provided on one hundred (100) percent of the parcel as follows:

- a. Cut all dry grass to a maximum height of 4 inches.
- b. Remove all dead standing trees.
- c. Remove all dead fallen material.
- d. Remove that portion of any dead tree limb within 10 feet of the ground.
- e. Remove all tree limbs within six feet of the ground. Limb removal shall not exceed  $\frac{1}{3}$  the height of any tree.
- f. Remove all cut material from the parcel, or chip and spread on-site.



## Undeveloped, Vacant or Open Space Parcels. (Cont'd)

### C. Clearance Standards

#### 2. *Standard #2* *Undeveloped parcels one acre and larger*

Clearance shall be provided a minimum of thirty (30) feet from the exterior boundary around the property to the same standard as III-C-1, a. through f.

In cases where the width or depth of the parcel may be less than 30 feet, the clearance will be made to the opposing property line.

#### 3. *Standard #3* *Environmentally sensitive /Scenic Designated Parcels*

The Del Monte Forest Foundation and Open Space Advisory Committee may request that specific parcels be excluded from the adopted clearance standards. A request for this variance shall be submitted to the Fire Department in writing no later than March 1<sup>st</sup> of each calendar year explaining the reason for the request.

In cases where the Del Monte Forest Foundation, Open Space Advisory Committee, and the Pebble Beach Fire Department are unable to come to agreement regarding variance requests, the Board of Directors of the Pebble Beach Community Services District shall make the final determination.

#### 4. *Standard #4* *Shaded Fuel Break*

The depth and/or distance of a Shaded Fuel Break shall be determined on a case-by-case basis. The fuel modification within that area shall conform to the following:

- a. Non-irrigated grass or other herbaceous vegetation that dries and cures should be mowed or cut to a maximum height of 4"
- b. Remove all dead trees.
- c. Remove all tree limbs within six feet of ground level.
  1. Where located on slopes in excess of 30%, remove all tree limbs within ten feet of ground level.
  2. Limb removal shall not exceed 1/3 the height of any tree.
- d. Remove all dead tree limbs within 10 feet of ground level. Prune out dead wood from retained shrubs and trees.

- e. All cut material shall be lopped to within 12” or less of ground level, or chipped and spread, or removed from the area.
- f. Shrubs should have average horizontal separation of twice their height. Groups of shrubs can be retained but should have extra clearance.
- g. Tree canopies should be separated by at least 10 feet measured edge to edge if possible. Shrubs should not be retained directly under tree canopies unless there is vertical separation of at least three times the height of the shrub between the top of the shrub and the lowest tree limb.
- h. The remaining ground fuels shall be maintained at a height of less than eighteen (18) inches.

## **Appendix**

- A. Defense Areas Location Map
- B. Huckleberry Hill Area
- C. Pescadero Canyon Area
- D. Navajo Tract Area
- E. Projected 2005 and 2006 Projects

Appendix E  
Projected 2005 and 2006 Projects

**2005**

Los Altos Drive Fuel Break on Huckleberry Hill, Phase 2, Maintain and Extend

The Haul Road Reforestation/ Haul Road Fire Road and Fuel Break, Complete

Sunridge Pines Fuel Break, Maintain

Fire Road 23, Sunset Lane Fuel Break, Maintain and Extend

Fire Road 23 Extension

Fire Road 23 Gate installation

Fire Road 20 re-alignment at Sunridge Loop

Fire Road 20 and Midwood Road, Install Gate

Carmel Woods Access, Complete

Annual Fire Road and Fuel Break Maintenance

Roadway mowing/brushing

**2006**

Los Altos Drive Fuel Break on Huckleberry Hill, Maintain

Pescadero Canyon/Carmel Woods Fuel Break, Complete

Haul Road Fire Road and Fuel Break. Maintain

Annual Fire Road and Fuel Break Maintenance

Fire Safe Demonstration Garden

Carmel Woods Fire Hazard Reduction

## Appendix A-6

### **AROMAS TRI-COUNTY FIRE PROTECTION DISTRICT NORTH COUNTY FIRE PROTECTION DISTRICT COOPERATIVE LE-38 INSPECTION PROGRAM**

#### **CONTENTS:**

Objectives and Goals	1
Agreement with NCFPD	2
Current Target Areas outside of ATCFPD	3
Current Target Areas within the ATCFPD	4
Projected Target Areas for 2006, 2007	6
Tracking procedures for Batt. 7 LE-38's	7

#### **Appendices:**

Map of non-ATCFPD target area for 2005	A2
Map of ATCFPD target area for 2005	A3
Map of non-ATCFPD target areas for 2006	A4
Map of ATCFPD target areas for 2006	A5
Map of non-ATCFPD target areas for 2007	A6
Map of ATCFPD target areas for 2007	A7
Public Resources Code 4290 – 4292	A8

## **CDF / Aromas LE-38 Program for 2005**

### **Objectives:**

- To start an annual PRC 4291 and power line inspection program in the SRA areas in Battalion 7 outside of the Aromas Tri-County Fire District.
- To continue the current PRC 4291 inspections and incorporate power line inspections within the Aromas Tri-County Fire District.
- Greater community involvement and education of fire prevention and fire protection measures.

### **Goals:**

- Complete inspections to a minimum of 1/3 of Battalion 7 within the target areas as outline in the 2004 BEU Fire Management plan. This will be accomplished with the cooperation of the North County Fire Protection District.
- Complete inspections to a minimum of 1/3 of the Aromas Tri-County Fire Protection District. As outlined in the 2004 BEU Fire Management Plan.
- To make contact with as many residence occupants as possible to inform them of their responsibilities and how their participation will help us to protect their homes in the event of a wildland fire.

## **CDF and North County Fire Protection District**

CDF and the North County Fire Protection District (NCFPD) have agreed to create a safer environment for the residences of North Monterey County, by working together in the Public Resources Code (PRC) sections 4290 & 4291 inspection process. The North County Fire Protection District falls in an area that is predominantly State Responsibility Area (SRA). They have agreed to do inspections for the CDF in the areas around NCFPD Station 2 and NCFPD Station 3. NCFPD will perform the initial (1<sup>st</sup>) inspections. Any properties that require a re-inspection and subsequent warnings and or citations issued will be handled by CDF.

CDF will make every attempt to forward the disposition of those properties that CDF follows up on to NCFPD for information and preplanning purposes.

### **The target areas in Battalion 7 outside of the Aromas Tri-County Fire Protection District (ATCFPD)**

- From the top of San Juan Grade Rd South to Crazy Horse Canyon Rd.
- Crazy Horse Canyon Rd East to Old Stage Rd.
- Old Stage Rd North from Crazy Horse Canyon Rd to the dead end.
- Assist ATCFPD with inspections within the fire district.

Make as many LE-38 Inspections as possible in these areas. Make contact with 70% of the property owners and or occupants.

Inspect the power lines and poles in these areas as well as take note of water sources, access routes, possible staging areas etc. Also make note of any bridges and load limits if possible. GPS any bridge that you are unable to find a load limit on also make note of the closest address to the bridge.

## **Target areas within the Aromas Tri-County Fire Protection District (ATCFPD)**

- Lynx map page 1028, Hwy 129, Old Chittenden Pass Rd, Pajaro Rd, School Rd, Forest Rd, Anzar Rd, Cole Rd and Upper Carr Ave
- Lynx map page 1029, Hwy 129, School Rd, Payne Rd and School Rd (Harlins Wy)
- Lynx map page 1128, Carr Ave, Cole Rd, Aromitas Rd, Anzar Rd, Cannon Rd, Brown Rd and Chateau Rd.
- Lynx map page 1129, Anzar Rd, School Rd, Harlins Wy, Hwy 129, Merrill Rd, Brown Rd, Chateau Rd, Orchard Hill Rd and Alexander Ln.
- Lynx map page 1130, Hwy 129, School Rd, Searle Rd, Short Rd, Anzar Rd and Hwy 101.
- Lynx map page 1228, Hwy 101, Cannon Rd, and Rocks Rd.
- Lynx map page 1229, Chateau Rd, Orchard Hill Rd, Oak view Ct, Hwy 101, Little Merrill Rd, Rocks Rd, Merrill Rd, Searle Rd and Emerald Wy.

Make as many LE-38 Inspections as possible in these areas. Make contact with 70% of the property owners and or occupants.

Inspect the power lines and poles in these areas as well as take note of water sources, access routes, possible staging areas etc. Also make note of any bridges and load limits if possible. GPS any bridge that you are unable to find a load limit on also make note of the closest address to the bridge.

## **Projected Target Areas for 2006 and 2007**

### **Target areas for 2006 outside ATCFPD**

- Chualar Canyon Rd
- Anzar Rd East of Hwy 101
- Assist NCFD And ATCFD

### **Target areas for 2006 within ATCFPD**

- ATCFPD Lynx Map pages 1026, 1027, 1126, 1127, 1226, 1227, 1326 and 1327

### **Target areas for 2007 outside ATCFPD**

- Lower San Juan Canyon from Quinn Canyon Rd west to San Juan Bautista city (SJB) limits.
- San Juan Grade Rd from SJB to the top of the grade.
- Assist NCFPD and ATCFPD

### **Target areas for 2007 within ATCFPD**

- ATCFPD Lynx map pages 1023, 1024, 1025, 1124, 1125, 1224, 1225 and 1325

## **Tracking of LE-38's**

Tracking of the LE-38's written by or followed up on by CDF will be done on the computer with the departments LE-38 tracking program. All LE-38's written by NCFPD will be tracked per NCFPD guidelines.



## **Appendix**





